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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,090	12/17/2001	Leonard Alan Collins	212410	4873

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EXAMINER	
AHMED, SALMAN	
ART UNIT	**PAPER NUMBER**
2666	

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/024,090	COLLINS ET AL.	
	Examiner	Art Unit	
	Salman Ahmed	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/17/2001 (Claims)*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,11-17,21-27,32-34 and 43* is/are rejected.

7)☒ Claim(s) *6-10,18-20,28-31 and 35-42* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3, 11, 12, 14 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Boyle et al. (US PAT PUB 2003/0018912), hereinafter referred to as Boyle.

In regards to claim 1, Boyle anticipates a method for a first computing device (figure 5, PC 10) to establish commemorations with a second computing device (figure 5, PC 12), the method comprising: sending a first communications request (page 3 section 0039, call-setup request) addressed (page 3 section 0039, TCP port 80) to a rendezvous service (figure 5, EXT MGR 20), the first commemorations request specifying the second computing device (page 3 section 0039, call request from PC 10 identifies PC 12 as the called party); and waiting to receive communications from the second computing device is anticipated by the steps of when the user at PC 10 wishes to communicate with the user at PC 12, a call-setup request is sent to external manager 20. The same TCP ports are used, in the same connection as the registration. In this

example the call request is contained in packet or packets that are sent to TCP port 80 from port 1234 of PC 10. The call request from PC 10 identifies PC 12 as the called party (page 3 section 0039).

In regards to claim 12, Boyle anticipates a method for a second computing device (figure 5, PC 12) to establish communications with a first computing device (figure 5, PC 10), the method comprising: receiving a first communications request (page 3 section 0040, call notification request) from a rendezvous service (figure 5, EXT MGR 20), the first communications request specifying the first computing device (page 3 section 0040, UDP port of the calling party (port 2345)); sending communications addressed to the first computing device (page 3 section 0043, null packet is sent from UDP port 5432 of PC 12 to UDP port 2345 of PC 10); and waiting to receive communications from the first computing device is anticipated by external manager 20 sending a call notification request to this port of PC 12 using a TCP connection. This call notification includes the UDP port of the calling party (port 2345), as well as its IP address (page 3 section 0040). A null UDP packet is transmitted from PC 12 to PC 10 to open window 32 in firewall 18. The null packet is sent from UDP port 5432 of PC 12 to UDP port 2345 of PC 10 (page 3 section 0043).

In regards to claim 3, Boyle anticipates establishing communications with the rendezvous service (page 2 section 0037, PC 10 registers with external manager 20 by opening a TCP connection to port 80).

In regards to claim 14, Boyle anticipates establishing communications with the rendezvous service (page 2 section 0036, PC 12 opens a TCP connection to port 80 of external manager 20).

In regards to claims 11 and 21 Boyle anticipates a computer-readable medium having instructions for performing the method of device (figure 5, PC 12 or PC 10).

3. Claims 22 and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Fox (US PAT PUB 2002/0184533).

In regards to claim 22, Fox anticipates a method for a first computing device (page 2 section 0021, self-contained, rack mountable computer system) to establish communications with a second computing device (page 2 section 0021, computers, terminals, workstations, etc), the method comprising: sending first communications (page 3 section 0033, ICMP echo request) addressed to the second computing device, using an address (page 3 section 0033, ICMP) and a first port number (page 3 section 0033, ICMP) associated with the second computing device, waiting to receive communications from the second computing device; waiting for a first failure indication, indicating that the first communications failed to establish communications with the second computing device (page 3 section 0033, an ICMP echo request may then be transmitted to a system corresponding to that IP address to determine if the IP address is active, step 212. A determination may be made regarding whether the system has responded to the ICMP request, step 214 or the system has failed to respond to the ICMP echo request), and if the first failure indication occurs before communications

from the second computing device are received then sending second commemorations (page 3 section 0033, a TCP ping may be sent to the system, step 216) addressed to the second computing device, using the address (page 3 section 0033, TCP ping) associated with the second computing device and a second port number (page 3 section 0033, TCP ping).

In regards to claim 32 Fox anticipates a computer-readable medium having instructions for performing the method of device (page 2 section 0021, self-contained, rack mountable computer system and page 2 section 0021, computers, terminals, workstations, etc).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 26, 33 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fox in view of Hong et al. (Statutory Invention Registration Reg no: US H2065 H), hereinafter referred to as Hong.

In regards to claim 26, Fox teaches sending second communication request as described in the rejection of claim 22 above. In regards to claim 33, Fox teaches a method for a first computing device (page 2 section 0021, self-contained, rack mountable computer system) to establish commemorations with a second computing device (page 2 section 0021, computers, terminals, workstations, etc), the method comprising: sending first communications addressed (page 3 section 0033, ICMP echo request) to the second computing device, using an address (page 3 section 0033, ICMP) and a first port number (page 3 section 0033, ICMP) associated with the second computing device; waiting to receive communications from the second computing device; waiting for a first failure indication, indicating that the first communications failed to establish communications with the second computing device (page 3 section 0033, an ICMP echo request may then be transmitted to a system corresponding to that IP address to determine if the IP address is active, step 212. A determination may be made regarding whether the system has responded to the ICMP request, step 214 or the system has failed to respond to the ICMP echo request).

In regards to claim 33 Fox does not explicitly teach if the first failure indication occurs before communications from the second computing device are received, then sending a first commemorations request to a proxy, requesting a proxy connection to the second computing device using the address and first port number associated with the second computing device. In regards to claim 26 Fox does not explicitly teach if the second failure indication occurs before communications from the second computing device are received, then sending a first communications request to a proxy, requesting a proxy connection to the second computing device using the address and first port number associated with the second computing device.

In regards to claims 26 and 33 Hong in the same field of endeavor teaches connecting two computer devices through a proxy server (column 3 lines 63-65). Hong teaches when the processor receives an incoming remote packet from a modem, the processor determines a destination client computer for the incoming remote packet, and substitutes the local address of the destination client computer for the modem port address of the modem in the incoming remote packet to create an incoming local packet. The processor transmits the incoming local packet to the destination client computer through the local port (column 2 lines 6-14).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Fox's system by incorporating the usage of proxy for connection as taught by Hong. The motivation is that (as suggested by Hong, column 1 lines 47-50) there is a need to connect network computers to the Internet without incurring the cost

burdens associated with either individual dial-up accounts or a dedicated connection while incorporating the benefits of both approaches. Using proxy alleviates such costs.

In regards to claim 43 Fox teaches a computer-readable medium having instructions for performing the method of device (page 2 section 0021, self-contained, rack mountable computer system and page 2 section 0021, computers, terminals, workstations, etc).

7. Claims 2 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyle in view of Hong.

In regards to claims 2 and 13 Boyle teaches sending data packets from one computing device to a second computing device as described in the rejections of claims 1 and 12 above.

In regards to claim 2 Boyle does not explicitly teach specifying an element in the set: a name of the second computing device, a public address of the second computing device, a public address of a Network Address Translator (NAT) behind which sits the second computing device. In regards to claim 13 Boyle does not explicitly teach specifying an element in the set: a name of the first computing device, a public address of the first computing device, a public address of a Network Address Translator (NAT) behind which sits the first computing device

In regards to claims 2 and 13 Hong in the same field of endeavor teaches because an outgoing TCP/UDP Internet packet specifies the mapped port 403 as the

source port 207 in its header 200, an incoming Internet packet on the same connection will specify the mapped port 403 as the destination port 209 in its header 200. As shown in FIG. 5B, the proxy server software matches the mapped port 403 and the protocol 211 specified in the header 200 of the incoming Internet to the corresponding entry 401 in the descriptor list 400 (step 521). The proxy server software then replaces the destination address 205 and destination port 209 in the header 200 of the incoming packet with the LAN address 409 and application port 410 from the entry 401 (step 523) (column 7 lines 1-12).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Boyle's system by incorporating NAT method as taught by Hong. The motivation is that (as suggested by Hong, column 1 lines 47-50) there is a need to connect network computers to the Internet without incurring the cost burdens associated with either individual dial-up accounts or a dedicated connection while incorporating the benefits of both approaches. Using NAT type proxy alleviates such costs.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boyle in view of Fox.

Boyle teaches sending data packets from one computing device to a second computing device as described in the rejections of claim 1 above.

Boyle does not explicitly teach waiting for a first failure indication, indicating that the second computing device failed to establish communications with the first computing

device; and if the first failure indication occurs before communications from the second computing device are received, then sending communications addressed to the second computing device.

Fox in the same field of endeavor teaches waiting for a first failure indication, indicating that the first communications failed to establish communications with the second computing device (page 3 section 0033, an ICMP echo request may then be transmitted to a system corresponding to that IP address to determine if the IP address is active, step 212. A determination may be made regarding whether the system has responded to the ICMP request, step 214 or the system has failed to respond to the ICMP echo request), and if the first failure indication occurs before communications from the second computing device are received then sending second commemorations (page 3 section 0033, a TCP ping may be sent to the system, step 216) addressed to the second computing device (page 3 section 0033, TCP ping).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Boyle's system by incorporating Fox's teaching of retrying connection with the second computing device. The motivation is that such attempts to retry connection makes a network robust and reliable, given that first attempt may fail due to reasons not in users control.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boyle in view of Fox in view of Wootten et al. (US PAT 6128298), hereinafter referred to as Wootten.

Boyle in view of Fox teach sending packets from one computing device to a second computing device as described in the rejections of claim 1 above.

Boyle in view of Fox do not explicitly teach the first failure indication is in the set: an event associated with a timer associated with sending the first communication request addressed to the rendezvous service, reception of communications from the rendezvous service.

Wootten in the same field of endeavor teaches having expiration timer associated with an UDP packet (column 7 lines 46-48).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Boyle in view of Fox's system by incorporating a message expiration timer as taught by Wootten. The motivation is that it is known in the art to have some sort of expiration timer for messages sent in the network. This timer enables a down link or connection not to get hung by waiting for an acknowledgement forever, as such making the network reliable.

10. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fox in view of Wootten.

Fox teaches sending packets from one computing device to a second computing device as described in the rejections of claim 22 above.

Fox do not explicitly teach the first failure indication is in the set: an event associated with a timer associated with sending the first communication addressed to the second communication device.

Wootten in the same field of endeavor teaches having expiration timer associated with an ICMP packet (column 7 lines 11-18).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Fox's system by incorporating a message expiration timer as taught by Wootten. The motivation is that it is known in the art to have some sort of expiration timer for messages sent in the network. This timer enables a down link or connection not to get hung by waiting for an acknowledgement forever, as such making the network reliable.

11. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fox in view of Boyle.

In regards to claims 24 and 25 Fox teaches sending data packets to a port address from one computing device to a second computing device as described in the rejections of claim 22 above.

In regards to claims 24 and 25 Fox do not explicitly teach the second port number is a port number associated with sending encrypted communications to a firewall and the second port number is 443.

In regards to claims 24 and 25 Boyle teaches using port 443 for connection establishment (page 2 section 32).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Fox's system by incorporating the scheme of communicating through port 443 as taught by Boyle. The motivation is that it is well known in the art to use port 443 for secure communication.

12. Claims 27 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fox in view of Hong in view of Wootten.

In regards to claims 27 and 34 Fox in view of Hong teach sending packets from one computing device to a second computing device as described in the rejections of claims 22 and 33 above.

In regards to claims 27 Fox in view of Hong do not explicitly teach the second failure indication is in the set: an event associated with a timer associated with sending the second communication addressed to the second communication device. In regards to claims 34 Fox in view of Hong do not explicitly teach the first failure indication is in the set: an event associated with a timer associated with sending the first communication addressed to the second communication device

In regards to claims 27 and 34 Wootten in the same field of endeavor teaches having expiration timer associated with an ICMP packet (column 7 lines 11-18).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Fox in view of Hong's system by incorporating a message

expiration timer as taught by Wootten. The motivation is that it is known in the art to have some sort of expiration timer for messages sent in the network. This timer enables a down link or connection not to get hung by waiting for an acknowledgement forever, as such making the network reliable.

13. Claims 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyle in view of Ellis (US PAT 6484257).

In regards to claims 15 and 17 Boyle teaches sending data packets from one computing device to a second computing device for connection setup as described in the rejections of claim 12 above.

In regards to claim 15 Boyle does not explicitly teach waiting for a first failure indication, indicating that the second computing device failed to establish communications with the first computing device; and if the first failure indication occurs before communications from the first computing device are received, then sending communications addressed to the rendezvous service. In regards to claim 17, Boyle does not explicitly teach sending communications addressed to the rendezvous service comprises sending an indication that the second computing device failed to establish communications with the first computing device

In regards to claims 15 and 17 Ellis in the same field of endeavor teaches notifying server if connection attempt to a client fails (column 9 lines 58-62).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Boyle's method by incorporating failure notification procedure

due to connection failure as taught by Ellis. The motivation is that (as suggested by Ellis column 9 lines 58-67) this will allow the server to take alternate action to establish connection, thus making the network robust and reliable.

14. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boyle in view of Ellis in view of Wootten.

Boyle teaches sending packets from one computing device to a second computing device for connection setup as described in the rejections of claim 12 above.

Boyle does not explicitly teach the first failure indication is in the set: an event associated with a timer associated with sending the first communication addressed to the first communication device.

Wootten in the same field of endeavor teaches having expiration timer associated with an UDP packet (column 7 lines 46-48).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Boyle in view of Ellis's system by incorporating a message expiration timer as taught by Wootten. The motivation is that it is known in the art to have some sort of expiration timer for messages sent in the network. This timer enables a down link or connection not to get hung by waiting for an acknowledgement forever, as such making the network reliable.

Allowable Subject Matter

15. Claims 6-10, 18-20, 28-31, 35-42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Salman Ahmed whose telephone number is (571)272-8307. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571)272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SA

Art Unit 2666

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